

# HAWAII JOURNAL WATCH

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**Highlights of recent research from the University of Hawai'i and the Hawai'i State Department of Health**

## MORE EXPERIENCE PERFORMING OPERATIVE VAGINAL DELIVERIES LINKED TO LOWER LACERATION RISK

Women who undergo operative vaginal deliveries (OVDs), in which forceps or a vacuum device is used, have lower odds of experiencing severe perineal lacerations when the deliveries are performed by obstetricians with more experience in OVDs. Researchers led by Kelly Yamasato MD, of the John A. Burns School of Medicine, examined data from all OVDs performed at Kapi'olani Medical Center for Women and Children from November 2008 to June 2014. For the 934 forceps-assisted deliveries during the study period, there were no associations between provider volume and neonatal injuries; however, the odds of severe perineal injury in women were significantly decreased among providers who performed more than 10 of these deliveries per year. Among the 1074 vacuum-assisted deliveries, there were no associations between provider volume and severe perineal injury or neonatal injury. The researchers concluded that if the volume of forceps-assisted deliveries declines, simulation training for providers could become increasingly important.

- Yamasato K, Kimata C, Chern I, Clappier M, Burlingame J. Complications of operative vaginal delivery and provider volume and experience [published online ahead of print, 2019 Nov 19]. *J Matern Fetal Neonatal Med*. 2019;1-6. doi:10.1080/14767058.2019.1688293

## INCREASING PSYCHIATRIC NURSES' KNOWLEDGE OF WOUND CARE

Skin wounds such as diabetic foot ulcers and venous and arterial leg ulcers are common among patients who are hospitalized with mental illnesses, and patients are not always able to report skin wounds, so psychiatric nurses must be knowledgeable about preventing, assessing, and treating these wounds. Sarah Pirani, DNP, of the School of Nursing and Dental Hygiene, led a quality improvement project aimed at increasing mental health nurses' wound care knowledge and skills. Multiple small-group training sessions lasting 90 minutes were held with a total of 40 nurses. Results showed that nurses increased their scores on a 10-question test of wound knowledge by an average of 5.14 points after the training. The nurses also reported feeling more confident in providing evidence-based, high-quality wound care. Pirani concluded that additional research is needed to find solutions to support psychiatric nurses in improving their competence in managing physical illnesses.

- Pirani S. Implementation of a wound care education project to improve the wound care competency among psychiatric nurses: A quality improvement project and feasibility study [published online ahead of print, 2020 Mar 14]. *J Psychiatr Ment Health Nurs*. 2020;10.1111/jpm.12629. doi:10.1111/jpm.12629

## HEALTH LITERACY LEVELS OF MOTHERS IN HAWAII

Researchers including Ruth Pitt MPH, a graduate of the Office of Public Health Studies, analyzed health literacy levels of mothers

in Hawai'i and their social networks. The study focused on Native Hawaiian and Filipino women, due to the expected relevance of social networks in health decision-making for women in these communities. The researchers interviewed 7 women in a support program for socioeconomically vulnerable mothers, the people these women identified as being involved in their health decisions, and the people those people involved in their health decisions, for a total of 18 people. The interview included a validated health literacy screening tool. Results showed 38% of participants had low health literacy. Among the people in the women's social networks, 45% had health literacy levels concordant with the person who had named them. The researchers concluded that the health literacy of a social network can be conceptualized as an entity that can be measured and changed to support health equity.

- Sentell T, Agner J, Pitt R, Davis J, Guo M, McFarlane E. Considering health literacy, health decision making, and health communication in the social networks of vulnerable new mothers in Hawai'i: A pilot feasibility study. *Int J Environ Res Public Health*. 2020;17(7):E2356. doi:10.3390/ijerph17072356

## COMPOUNDS IN JING LIQUEUR ANALYZED

Jing liqueur is a popular beverage in China and is available in the U.S. It is made from the extracts of 10 plants that are used in Traditional Chinese Medicine and has an alcohol content of 35%. Researchers led by You-Sheng Cai, of the Daniel K. Inouye College of Pharmacy, isolated 189 compounds from Jing liqueur and examined their effects on a transcription factor called nuclear factor erythroid 2-related factor 2 (Nrf2), which controls the expression of antioxidant and detoxifying enzymes. Results showed that crude extract of Jing liqueur increased Nrf2 activity by about 7–8-fold, and that 18 of the individual compounds also activated Nrf2. Nrf2 activity has been shown to protect cells against oxidative stress. The researchers noted that they received funding from the Jing Brand Research Institute and concluded that the effects of Jing liqueur on Nrf2 should be studied further.

- Cai, Y-S, Xu J, Chen M, et al. Compound analysis of Jing liqueur and Nrf2 activation by Jing liqueur—one of the most popular beverages in China. *Beverages*. 2020;6,1; doi:10.3390/beverages6010001

## RETIREMENT AGE LINKED TO CUMULATIVE DISADVANTAGE

Adults who remain in the paid labor force longer in life have improved health and stronger economic security. However, those with low education, poor health, and physically demanding jobs may be pushed to retire early. Researchers including Yeonjung Jane Lee PhD, of the Myron B. Thompson School of Social Work, looked at data gathered over an 8-year period from 944 participants in the national Health and Retirement Study (HRS). Results showed that those who had more major experiences of discrimination over their lifetimes, faced higher levels of chronic work discrimination, and experienced greater physical disorder and lower social cohesion in their neighborhoods were more likely to retire early. The researchers concluded that their findings support the cumulative disadvantage theory, which holds that risks that accumulate across multiple domains of life undermine mental health and employment in later life.

- Gonzales E, Lee YJ, Marchiondo LA. Exploring the consequences of major lifetime discrimination, neighborhood conditions, chronic work, and everyday discrimination on health and retirement. *Journal of Applied Gerontology*. 2019; doi.org/10.1177/0733464819892847